

picture taking with the



KODAK

35

CAMERA

with range finder

KODAK

KODACHROME
TRANSPARENCY

KODACHROME
TRANSPARENCY



Kodachrome Prints
are full-colored en-
largements made
from Kodachrome
transparencies. They
can be ordered
through your Kodak
dealer. The 2X size is
illustrated here.

35 CAMERA with RANGE FINDER

Introduction

Your Kodak 35 Camera with Range Finder is a fine picture-making instrument. It reaches far above the average miniature camera in its class to include features that insure maximum results with minimum effort.

Its Kodak Anastar $f/3.5$ Lens is highly color-corrected and Lumenized . . . its Flash Kodamatic Shutter is factory-synchronized for flash shots . . . the split-field range finder is coupled with the lens to give instant, accurate focus. These are but a few of the features which recommend this camera for the discerning photographer.





Album-size prints

Your photofinisher makes standard enlarged prints like this—approximately $2\frac{3}{4} \times 4$ in.—from Kodak 35 black-and-white negatives.

Get Acquainted

Picture taking with your Kodak 35 Camera is easy. But if you would like to make sure of getting good results every time, even from the beginning, spend a few minutes getting acquainted with your camera before you load it with film.

•
Read the pages of this manual with special care—they tell you how to operate your camera, and why. The “why” is important because once you really understand the fundamentals, you can devote more of your attention to making interesting pictures—pictures that tell a story.

•
Before your vacation or that important event, why not make some trial shots just to be sure that you understand your camera and know that your equipment is operating properly. Your dealer will be glad to check your results and offer tips to improve your technique so that you won’t miss that “important shot.”

CONTENTS

Exposure	6
Films	9
Focusing	12
Loading	14
Poor Light	18
Pictures at Night	20
Interesting Pictures	23
Reference Tables	28
Picture-Making Aids	31

Easy to Operate

To take any picture all you do is:

set

the exposure time

set

the lens opening

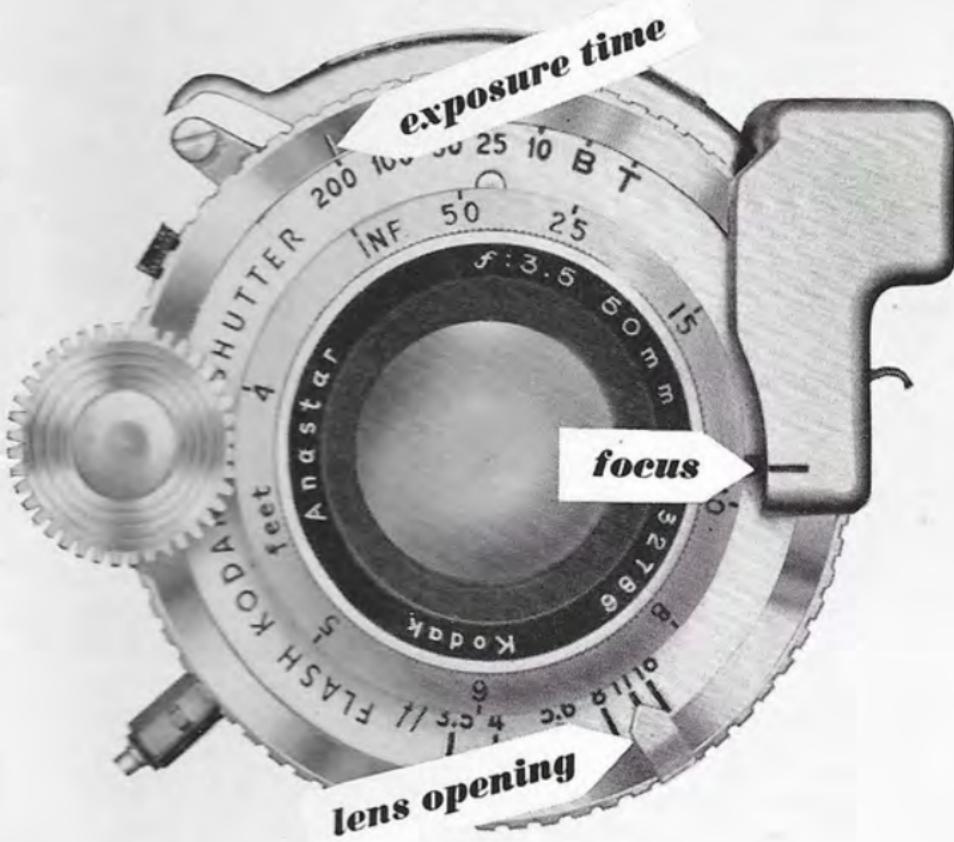
set

the focus

When you aim your camera at a subject and snap the picture, a flash of light passes through the camera lens to the film and produces an invisible image of the subject on the film.

Think of the fundamentals of camera operation this way—adjust the **EXPOSURE TIME** to control the *length of time* that the shaft of light strikes the film—adjust the **LENS OPENING** to control the *effective size* of the shaft of light—adjust the **FOCUS** to control the *sharpness* of the reflected image that the shaft of light carries to the film.

Now that you are familiar with the fundamentals of camera operation, study the simple additional details that follow for sharp, well-exposed prints.



Exposure



In Sunlight or in Shade

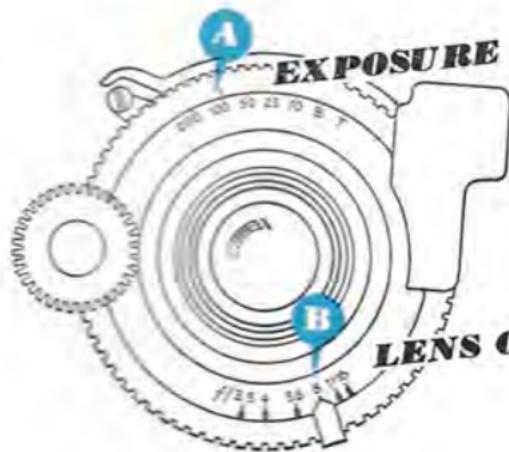
You can see that the film always gets enough light to record the picture properly by adjusting



EXPOSURE TIME

The settings at the top of the shutter regulate exposure time. Any one of five measured fractions of a second— $1/200$, $1/100$, $1/50$, $1/25$, $1/10$ —can be selected by turning the knurled collar A. The “T” and “B” settings permit you to keep the shutter open for much longer intervals. More about them later.

You can hold the camera in your hands for exposures of $1/200$, $1/100$, $1/50$, or $1/25$ of a second; for longer exposures, the camera must be placed on a tripod or other firm support.



EXPOSURE TIME—the length of time the shutter stays open to admit light to the film.

LENS OPENING—this controls the amount of light that passes through the lens while the shutter is open.

In general, an exposure time of 1/100 second or 1/50 second should be used for pictures made outdoors in sunlight. A short exposure time helps prevent blurred pictures which may result from a slight movement of the subject or the camera when you snap the picture.

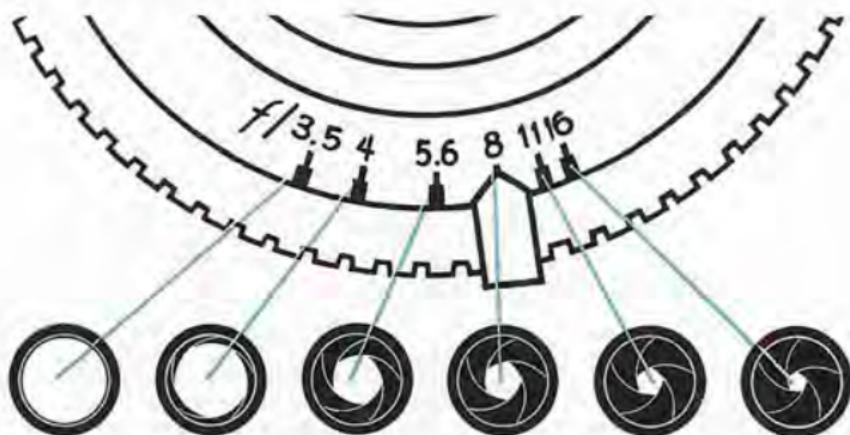
Note that each shutter setting with which the camera can be hand-held gives an exposure twice as long as the one directly preceding it. For example, at 1/100 second, twice as much light reaches the film as at 1/200.



LENS OPENING

As the lever is moved across the scale at the bottom of the shutter, the lens opening is gradually changed in size.

The opening is smallest when the lever is at $f/16$. Each succeeding setting admits, in a given exposure time, twice as much light as the one before— $f/11$ lets through twice the light of $f/16$, $f/8$ twice that of $f/11$, and so on down the scale until $f/3.5$, the largest opening is reached. This opening admits only $1\frac{1}{2}$ times more light than $f/4$.



The illustration above shows how the size of the lens opening—the opening through which light passes to the film—is changed as the lens opening lever is moved across the scale.

Kodak Films

Why mention the film? Because there is a right film for every requirement—Kodachrome for pictures in full color and several choices of black-and-white films to cover the differences in subject types you intend to photograph, the various lighting conditions, and the particular effect you may desire.

KODACHROME

For full-color transparencies which can be projected on a screen, or from which Kodachrome Prints can be made. Use Kodachrome Film Daylight Type for pictures outdoors, Kodachrome Film Type A for photo-flood or photoflash.

PLUS-X PANCHROMATIC

The combined high speed and fine grain of this film make it the ideal film for general outdoor picture taking in black and white.

PANATOMIC-X

Because of its ultra-fine grain, this is the film to use when big enlargements are to be made. Use twice the exposure as that required for Plus-X.

SUPER-XX PANCHROMATIC

A high-speed film especially suited for snapshots under difficult light conditions. Requires one half the exposure of Plus-X.

INFRARED, DIRECT POSITIVE, MICRO-FILE

Special-purpose films are described on page 30.

Daylight Kodachrome Exposure Table

What Exposure? Most subjects to be photographed in color can be classified in three standard groups to which definite exposures can be assigned. The table is for Kodachrome Film Daylight Type under typical lighting conditions. For further information, consult page 28 of this manual, the Snapshot Kodaguide, or the instruction sheet packed with the film.

Subjects



Dark Subjects

Masses of dark green shrubs or people standing near shrubbery which does not reflect light into the shadows can be classed as "Dark Subjects."

Lens Opening



Average Subjects (Basic Exposure)

Most pictures fall into this group — near-by people, brightly colored gardens, houses, pets, etc. In general, use this classification if in doubt.

Lens Opening



Light Subjects

Beach, marine, and snow scenes, where everything is light-colored and the surroundings reflect light onto the subject to give a brilliant, flat lighting.

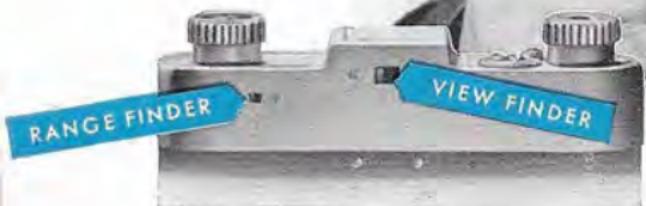
Lens Opening

Shutter Speed

Lighting Conditions

Clear sun Subject in direct sunlight	Hazy sun Soft shadows cast	Cloudy but bright
		
<i>f/5.6</i>	<i>f/4</i>	<i>Between f/4 and f/5.6</i>
<i>1/50</i>	<i>1/50</i>	<i>1/25</i>
<i>Between f/5.6 and f/8</i>	<i>Between f/4 and f/5.6</i>	<i>f/3.5</i>
<i>1/50</i>	<i>1/50</i>	<i>1/50</i>
<i>f/8</i>	<i>f/5.6</i>	<i>Between f/4 and f/5.6</i>
<i>1/50</i>	<i>1/50</i>	<i>1/50</i>

Focusing



There is no guesswork involved in setting your Kodak 35 Camera for distance. With the range finder, you accurately determine camera-to-subject distance and adjust the lens to form a sharp image of the subject on the film in one operation.



Raise the camera to your eye and look through the range finder window. Note that a distinct horizontal line divides the field of view. Look at a vertical line in the subject. The vertical line will appear broken if the camera is not focused for the distance between the camera and the subject.

Turn the focusing wheel until the vertical line is unbroken. The camera will then be accurately focused on the subject.

Taking the Picture

Look through the view finder—it shows you what will be included in the picture. **Hold** the camera so that *you can just see the edges of the front opening in the finder.*

Make the exposure by slowly pressing the exposure lever. See the illustrations below.



Hold the camera steady. If it is moved during the exposure, the picture will not be sharp. It's a good idea to hold your breath for an instant as you press the exposure lever.

Loading

Load the camera in subdued light

... never in direct sunlight or strong artificial light. Choose the film best suited for the pictures you plan to make. Your camera uses Kodak 135 Film.

**1****2****3**

Follow these steps for easy loading

- 1 Turn the latch on the bottom of the camera in the direction of the arrow to OPEN. Slide off the back.
- 2 Insert the film magazine in the recess opposite the take-up reel, turning the magazine spool slightly until it engages the slot in the rewind shaft.

3 Pull film from the magazine until one inch of its full width is exposed. Insert the end of the film leader into the slot of the take-up reel. Do not try to remove this reel from the camera.

4 Turn the film winding knob in the direction of the arrow until one complete turn of film is on the reel. Engage the perforations of the film leader with the teeth of the sprocket. *Continue turning the winding knob until it locks.*



4



5



6

5 Be sure the film is riding in the channel provided for it; then replace the camera back. Turn the latch in the direction of the arrow to LOCK.

6 Free the winding knob by pushing in the release button (see arrow in illustration) and letting it spring back. Turn the winding knob until it locks. Unlock the winding knob and continue to wind the leader through the camera *until the winding knob locks for the third time after the camera back is replaced.*

7 Turn the counter to 1, the line next to 0, between 0 and 5.

8 After making each picture, depress the release button, release it, and turn the winding knob until it locks. This winds the film, advances the counter, and cocks the shutter. A red signal on the shutter indicates that the exposure can be made.



7



8

Film indicator dial

A dial is provided on the top of the rewind knob to enable you to keep track of the kind of film you've loaded in the camera. Set the film indicator dial each time you load your Kodak 35 Camera. See page 17.

To remove the film

After the last exposure has been made, lift the winding knob to release the take-up reel. Rewind the film into the magazine by turning the rewind knob clockwise

(in the direction of the arrow in the illustration). As the film is rewound, the exposure counter will turn. Continue to rewind the film until the exposure counter stops turning; then remove the back of the camera and take out the magazine of exposed film.



Now you know

... all you need to know to take sharp, well-exposed pictures outdoors. A little practice will enable you to perform the simple operations of loading and focusing smoothly and surely. Exposure is easy. Refer to the Snapshot Kodaguide if you don't remember the settings for the type of picture you wish to make.

As you look through the view finder, remember that your camera will record *everything* you see—not just the principal subject alone. Keep the whole scene in mind as you compose the picture. Check the background, lighting, shadows. Try several different viewpoints. Eliminate uninteresting or distracting objects. Attention to such details will help lift your pictures above average right from the start.

When the light is poor . . .

Don't put your camera aside simply because the light isn't bright enough for a snapshot. Deep shade, softly lighted interiors, outdoors after dark—these conditions offer opportunities for a host of interesting pictures, and your Kodak 35 Camera is capable of making them.

Remember to place the camera on a tripod or other support for exposures longer than 1/25 of a second.

Indoor portraits

Pictures like the one shown below are easily made on bright, sunny days near a window. Place a white cloth or sheet of cardboard so it will reflect light from the window to the shadow side of the subject. With Kodak Plus-X Film, a suitable exposure for this picture would

18 be 1/25 at f/5.6.





“B” and “T” exposures

Striking night scenes like that shown above require exposures much longer than the measured intervals provided on the shutter. For such pictures, use the “B” or “T” setting. For an exposure of 1 to 10 seconds, set the shutter at “B”; then press down the exposure lever and hold it. The shutter will remain open as long as the lever is depressed. For exposures longer than 10 seconds, set the shutter at “T.” Press down the exposure lever and immediately release it. This opens the shutter. When the required time has elapsed, *press the lever again* to close the shutter.

Any moving bright lights will show as streaks in the picture. Put your hand momentarily in front of the lens when an automobile approaches.

Pictures at night

Photoflood photography

It's easy to make snapshots indoors at night with your Kodak 35. Two Kodak Vari-Beam Standlights or Clamplights fitted with photoflood lamps provide ample illumination.

To make a picture, place one Vari-Beam light alongside the camera. Place the other light at an equal distance from the subject on the other side of the camera, and at an angle of about 45 degrees to the lens axis. It should be about 2 feet higher than the camera.

For a color snapshot at night with Kodachrome Film Type A, a suitable exposure would be 1/25 second at $f/4$; lamps at 5 feet from the subject.

The manual packed with the lights and the table on page 28 give exposures for a number of "lamps-to-subject" distances.

Flash photography

You can make snapshots at night, in color or black and white, with flash lamps—without a synchronizer. All you need, besides the flash lamps, is a Kodak Flasholder which is connected with a cord to the post on the rim of the shutter.



Either of two types of flash lamps can be used: Class F, such as the SM Photoflash Lamp, or Class M, such as the No. 5 Photoflash Lamp. Synchronization for the Class M Photoflash Lamp is controlled by the Synchronizer Lever. The Class F Lamp is synchronized without use of the lever.



Class F lamps, such as the SM Photoflash Lamp or equivalent:

1. Insert the flash lamp in the reflector.
2. Cock the shutter in the usual way.
3. Release the shutter; *do not use the synchronizer lever.*

Class M lamps, such as the No. 5 Photoflash Lamp or equivalent:

1. Insert the flash lamp in the reflector.
2. Cock the shutter in the usual way.
3. Push down the synchronizer lever as far as it will go.
4. Release the shutter.

Complete exposure information is given in the instructions packed with the Kodak Flashholder.

Caution: A transparent protective screen over the reflector is recommended as lamps may shatter when flashed. Do not flash lamps in an explosive atmosphere.

Do not insert flash lamps in the reflector if the shutter is set on "T" and the shutter blades are open—*the lamp will flash and a serious burn may result.*



Make your pictures interesting

Look beyond the subject

Check the background—be sure it serves merely as a setting for the picture. Make certain, for example, that a tree branch does not seem to be growing out of your subject's head. Beware of any background with prominent horizontal or vertical lines, such as a trellis or the clapboarded side of a house. Try a low viewpoint for informal outdoor portraits—the sky will make an excellent background.

Tell a story

Your snapshots will have general appeal if they tell some little story and tell it at a glance. Try to picture your subject engaged in some activity, seemingly unaware of the presence of the camera. Include an accessory in the picture to engage the subject's interest. It will help achieve naturalness.

Back lighting

You can often make charming pictorial snapshots with back lighting—with the sun *behind*, or nearly behind, your subject. Shade the lens from the direct rays of the sun. A Kodak Lens Hood provides a convenient and effective way to do this.

When shadow detail is important, as in pictures like the one opposite, give twice the normal exposure.

Action

Anyone can make sharp pictures of subjects in motion by combining a short exposure time with a bit of skill. Use 1/200 of a second, whenever possible, for any picture where the subject is moving, or where there is a chance for sudden movement.

The most pleasing pictures of a subject in motion are obtained when the subject is moving diagonally across the field of view at an angle of about 45 degrees to the lens axis. It is comparatively easy to arrest the motion from such a viewpoint. If you are photographing a subject such as a train, automobile, boat, or a child on a bicycle, blur from movement becomes less apparent in the picture as the distance between the subject and the camera is increased.

In certain types of activity, the subjects periodically slow up, or stop momentarily in positions that *suggest* action. Watch for such pauses. If you release the shutter at the right instant, you can capture a world of implied action in your pictures.

Third-dimension effects

A third-dimension effect—a feeling of depth and “atmosphere”—can often be achieved by using side lighting, or by “framing” the principal object by means of overhanging branches, an arch, or a doorway.

Shadows thrown across the foreground make you feel that you are looking *into* a picture instead of looking *at* a flat piece of paper carrying the images of some objects.



Use a filter

Most filters are made of a thin sheet of dyed gelatin cemented between pieces of optical glass. Placed over a camera lens, a filter passes some light rays and absorbs others.

Certain filters darken a blue sky, making white clouds stand out clearly, and bring out detail in distant scenes by cutting through haze. Kodak Wratten Filters K2, G, and A* give you these results with medium, strong, and extra-strong effects. The pictures on the opposite page illustrate some of the effects obtainable by the use of filters.

Since a filter achieves its effect by absorbing light that would otherwise reach the film, the use of a filter requires an increase in exposure.

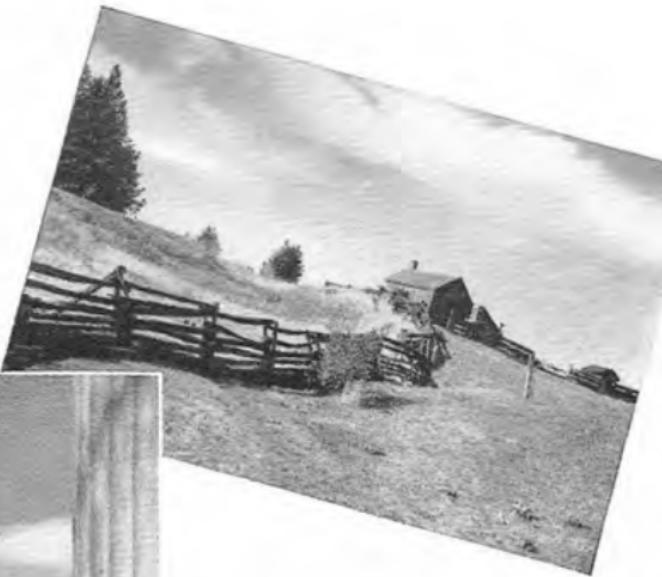
For example, with a "bright subject" in sunshine, 1/100 at $f/11$ gives correct exposure with Plus-X Film and no filter. If a G filter is used, *3 times* that exposure must be given: set the lens opening lever halfway between $f/5.6$ and $f/8$ with the same exposure time.

With a K2 filter, give *twice* the exposure you would give without the filter; with an A filter, give *8 times* the normal exposure.

For detailed information on these and other Kodak Wratten Filters, see the Kodak Data Book *Filters and Pola-Screens*. It's on sale at Kodak dealers.

The most convenient way to attach a filter over the camera lens is by means of a Kodak Adapter Ring of the Kodak Combination Lens Attachments listed on page 31.

*These filters are for black-and-white films only.



Reference Tables

Daylight Exposure Table For Plus-X Film

With Panatomic-X Film, give twice the recommended exposure

With Super-XX Film, give one half the recommended exposure

With Kodachrome Film, see pages 10 and 11

Type of Subject	Bright Sun	Hazy Sun	Cloudy-Bright	Cloudy-Dull
Brilliant Subjects	f/16 and 1/100	f/11 and 1/100	f/8 and 1/100	f/5.6 and 1/100
Bright Subjects	f/11 and 1/100	f/8 and 1/100	f/5.6 and 1/100	f/4 and 1/100
Average Subjects	f/8 and 1/100	f/5.6 and 1/100	f/4 and 1/100	f/4 and 1/50
Shaded Subjects	f/5.6 and 1/100	f/4 and 1/100	f/4 and 1/50	f/4 and 1/25

This table is for the hours from one hour after sunrise until one hour before sunset.

Use one lens opening larger for pictures during the hour after sunrise or the hour before sunset, winter scenes without snow, back-lighted subjects.

Photoflood Exposure Table For Super-XX Film

Two No. 2 Photoflood Lamps in Kodak Vari-Beam Lights set at "STILL"

With Plus-X Film, give twice the recommended exposure

With Panatomic-X Film, give four times the recommended exposure

With Kodachrome Film, see the Vari-Beam manual

Exposure Time in Seconds	Distance in Feet from Lamps to Subject				
	f/3.5	f/4	f/5.6	f/8	f/11
1/100	12	11	8	5	3½
1/50	17	16	14	7	5
1/25	24	23	20	10	7

This table applies to light-colored rooms. In public halls, or in dark-colored rooms, give twice the recommended exposure.

Depth of Field

Depth of field is the distance between the nearest and farthest objects in a scene which will be sharp in the picture. Note that the depth of field increases (1) as the lens opening is made smaller, or (2) as the distance focused upon is increased.

A great range of sharpness is desirable in many pictures, particularly in landscapes. Since most objects of interest are at a considerable distance from the camera in such pictures, no difficulty is usually encountered in obtaining the required range of sharpness. However, it is sometimes desirable to record sharply an object near the camera as well as objects at an extreme distance. In such cases, reference to the table will help you set lens opening and focus to get a depth of field which will cover objects at both positions.

29

Depth-of-Field Table

Distance Focused Upon	f/3.5	f/4	f/5.6	f/8	f/11	f/16
4 ft	3' 8" to 4' 5"	3' 7 $\frac{3}{4}$ " to 4' 5 $\frac{1}{2}$ "	3' 6" to 4' 8"	3' 4" to 5'	3' 2" to 5' 7"	2' 11" to 6' 9"
5 ft	4' 6" to 5' 7"	4' 5 $\frac{1}{2}$ " to 5' 9"	4' 3" to 6"	4' to 6' 8"	3' 9" to 7' 8"	3' 4" to 10' 2"
6 ft	5' 4" to 6' 11"	5' 3" to 7'	5' to 7' 7"	4' 7" to 8' 7"	4' 3" to 10' 4"	3' 9" to 15' 4"
8 ft	6' 10" to 9' 8"	6' 8" to 10'	6' 3" to 11'	5' 9" to 13' 3"	5' 2" to 17' 6"	4' 5" to 38' 6"
10 ft	8' 2" to 12' 9"	8' to 13' 3"	7' 5" to 15' 2"	6' 8" to 19' 9"	5' 11" to 31' 3"	5' to Inf
15 ft	11' 4" to 22'	10' 11" to 24'	9' 11" to 30' 8"	8' 7" to 58' 2"	7' 5" to Inf	6' to Inf
25 ft	16' 2" to 54'	15' 5" to 65'	13' 6" to Inf	11' 2" to Inf	9' 3" to Inf	7' 2" to Inf
50 ft	24' to Inf	22' to Inf	18' 4" to Inf	14' 4" to Inf	11' 4" to Inf	8' 4" to Inf
INF	42' to Inf	37' to Inf	27' 9" to Inf	19' 5" to Inf	14' 3" to Inf	9' 10" to Inf

"Inf" is the abbreviation for Infinity—meaning an unlimited distance from the lens.

Films for Special Purposes

The four Kodak Films mentioned earlier—Plus-X, Super-XX, Panatomic-X, and Kodachrome—provide characteristics which will meet most everyday picture situations as well as the requirements of many specialized fields. However, for certain types of work, special-purpose Kodak Films are required:

Kodak Direct Positive Panchromatic Film

A fast, fine-grained film for making black-and-white positive transparencies for projection. In processing, the film is first developed to give negatives, and these are reversed into positives. Processing can be done in the home darkroom with the Kodak Direct Positive Film Developing Outfit.

Kodak Infrared Film

The most common use of Infrared Film is for distant landscape photography, since it usually records distant objects very clearly, even if atmospheric haze makes them invisible to the eye. It is also very useful in scientific, medical, and criminological photography. Infrared Film must be used with a deep orange or red filter over the camera lens.

Kodak Micro-File Film

This is an extremely fine-grained, slow, panchromatic film especially designed for making reduced copies of newspapers, manuscripts, drawings, letters, etc.

Picture-Making Aids

Sole Leather Deluxe Field Case

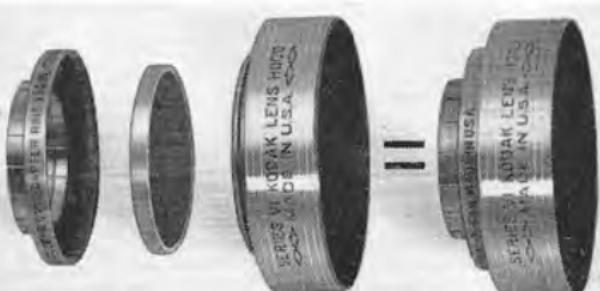
A tan sole leather carrying case which protects the camera and permits it to be used without removal from the case. It is of two-piece construction so that the front and top can be removed.



Kodak Combination Lens Attachments

Provide a set of matched lens accessories for your camera. They include a lens hood, filters, supplementary lenses, diffusion disks, a Pola-Screen, and an Adapter Ring. Your Kodak 35 takes the Series VI Lens Attachments and the 1 1/4-inch Adapter Ring with its insert. To use a filter, unscrew the insert from the adapter ring, place the filter in the ring, and screw the insert back into place to hold the filter. A Lens Hood may replace the insert. The assembly of the Adapter Ring, a Kodak Wratten Filter, and the Kodak Lens Hood is shown below.

31



Kodaslide Table Viewer Model A

This new viewer provides complete one-package-projection for your transparencies. Your slides are enlarged five times and brilliantly illuminated by the Lumenized optics without fuss or inconvenience in a normally lighted room. It has a pleasing appearance that blends well with the furnishings of the home or office and is easily carried. (Illustrated below at right.)

Kodaslide Projectors

The Kodaslide Projectors have Lumenized optics for brilliant, full-color pictures.

Kodaslide Projector Model 1A—of molded plastic construction, has a 150-watt lamp and 4-inch lens.

Kodaslide Projector Model 2A (illustrated)—of rugged die-cast construction, has a 150-watt lamp and either a 5- or 7½-inch lens.

Kodaslide Projector Master Model—for fine projection, has a 1000-watt lamp, a choice of five lenses (5, 7½, and 11-inch) and has forced air circulation. A carrying case is supplied with the projector.



Details

Kodak 35 f/3.5 Camera with Range Finder

FILM

NEGATIVE Size—24 x 36mm.

FILM SIZE—Kodak 135; 20- or 36-exposure magazines.

LENS

KODAK ANASTAR—50mm *f*/3.5 Lumenized, 4-element lens.

LENS OPENINGS—*f*/3.5, 4, 5.6, 8, 11, 16.

SHUTTER

FLASH KODAMATIC—gear-train retard, cocking type.

SPEEDS—1/10, 1/25, 1/50, 1/100, 1/200, time, and bulb.

RELEASE—trigger on shutter or Metal No. 5 Cable Release.

COCKING—automatic, as film is advanced; red signal shows when cocked.

FLASH—adjustable for Class F and Class M lamps (used with Kodak Flashholder).

FOCUSING AND VIEWING

RANGE FINDER—split-field; coupled with lens and focusing scale.

FOCUSING RANGE—4 feet to infinity.

VIEW FINDER—direct, optical eye-level type, designed to prevent parallax cut-off within focusing range.

FILM OPERATION

FILM ADVANCE—by winding knob. Film advance mechanism automatically (1) prevents double exposures, (2) prevents blank exposures, (3) positions film frames, (4) advances exposure counter, (5) cocks shutter.

FILM TYPE INDICATOR—set dial to show film load.

CONSTRUCTION

BODY—tough molded plastic, reinforced by metal—top, back, and bottom.

BACK—quickly removable for loading.

FINISH—metal parts, satin-finished chrome.

TRIPOD SOCKET—fits tripod or Kodak Flashholder.

A KODAK FILM

for every picture-taking need

- **KODAK PLUS-X**
High Speed, Fine Grain
- **KODAK SUPER-XX**
Exceptionally High Speed
- **KODAK PANATOMIC-X**
For fine enlargements
- **KODACHROME**
For full-color photography



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